

REMARKS

Recap of the Official Action

Claims 1-23 were rejected, as follows:

- Claims 1-11 and 21-23 (and more particularly claims 1, 6 and 21-23) under ‘112 (re “or the like”).
- Claims 1-2, 4-6, 10-18 and 20-23 as anticipated by *Hutter* ‘084 under ‘102.
- Claims 3 and 9 as obvious over *Hutter* in view of *Liebich* ‘768.
- Claims 7, 8 and 19 as obvious over *Hutter* in view of *Dyer* ‘988.

Reducing the issues

To reduce the issues in this case, yet focus on the patentable novelty therein —

- Claim 1 (and hence claims 2-5 and 21 dependent thereon) have been carefully amended to patentably distinguish over the cited prior art (as well as avoid the ‘112 rejection).
- Claim 6 has been amended, extensively, and made dependent on claim 1.
- Claim 11 has been made dependent on claim 1.
- Claim 22 has been amended, extensively, and made dependent on claim 5.
- Claim 24 has been inserted to more fully protect the applicant’s unique contribution to the art.

Review of the cited references

Prior to a discussion of claims 1-6, 11, 21, 22 and 24 (the claims now in the case) a review of the cited art —*Hutter* '084, *Leibich* '768 and *Dyer* '988 is in order.

Hutter discloses a “uni-directional heating apparatus “intended for indirect radiant heating, principally indoors.

With reference to Figs. 2 and 3C (and col. 2, lines 20-48) of *Hutter*, a centralized mounting bar 20 has elongated wires 22; and suitable electrical connectors pass through openings 28 in a cover plate 24 for engaging heating wires 12 contained in carriers 10. The apparatus includes an insulating base 14, and further includes ramps 16 on either side thereof “to prevent tripping of persons walking over the carpeting”. [Please see the colored, marked-up sheet 2 of *Hutter*’s drawing, attached hereto as “Exhibit A”.]

If there is a breakage in the wires, the entire apparatus must be removed for subsequent service and replacement or, more likely, scrapped altogether.

Of significance, *Hutter* has “**carriers 10 ... provided with open channels for receiving heating wires 12**” (column 2, lines 20-24) and these heating wires 12 comprise a “**sinuous heating coil 32**” (Fig. 2 and column 2, line 51 of *Hutter*).

Hutter does **not** disclose —

- An insulating block, **within a ...**
- **Pan** (frame or form) and the pan being ...
- **Anchored** (to a driveway, etc.) and a ...

- Heating means, which is *not* connected to the block, but is ...
- **Sandwiched** between the block and the pan, such that ...
- **The block can be merely lifted up** out of the pan for **easy access** to the heating means.

Liebich follows the teachings of *Hutter*.

A marked-up enlarged, colored copy of Fig. 4 of *Liebich* is superimposed on the title page thereof and is attached hereto as “Exhibit B”. The heating means is integral with the block.

[Please see col. 5, lines 5-10 of *Liebich*.]

Dyer merely discloses heated mats 10 that may be anchored to stairs by means of mechanical fasteners passing through holes 27 or, in the alternative, by adhesive elements 15.

[Please refer to col. 9, lines 29-34 and Fig. 3 of *Dyer*. A marked-up colored copy of an enlarged Fig. 3 is superimposed on the title page of *Dyer* as “Exhibit C”.]

Review of the Invention

With respect to p. 24, lines 10-13 of applicant’s specification, and to Figs. 11 and 15 of the applicant’s drawings—a marked-up colored copy of which is attached hereto as “Exhibit D”—the claimed invention includes, *inter alia*:

- an existing driveway,
- a **pan (or form) anchored** to the driveway—or to a groove in the driveway— (see p. 3, line 13 of the specification),
- at least one **block within the pan** (the pan having a frictional surface),

- the block being **keyed** against lateral movement within the pan (see Fig. 11 on Exhibit D) and
- electrical heating means **disposed between the block and the pan** (and *not* secured to either the block or to the pan),
- such that in the event of failure of the heating means, the **block may be easily lifted up** (against the keying means) for convenient and easy access to the electrical heating means for repair and/or replacement thereof,
- **thereby avoiding the necessity for digging up any concrete or asphalt** (AS IN THE COMMERCIAL PRIOR ART!).

The Commercial Significance of the Invention.

In the commercial prior art, no one (to the applicant's knowledge) is marketing a do-it-yourself ("D.I.Y.") heated driveway *kit* for ready installation and use over an existing driveway (walkway, etc.).

An example of the current commercial practice is shown in the enclosed promotional brochure from —

HEATIZON SYSTEMS TM

— enclosed herewith as "Exhibit E".

For outdoor use (see the back page of this brochure) the ramp or other surface must be dug up to obtain access to the electrical heating means in the event of failure. Obviously, this requires a "heavy-duty" contractor; it is not the usual **D.I.Y.** ("Harry Homeowner") project.

The applicant's claimed invention, on the other hand, is a **modular D.I.Y. system**.

"Harry Homeowner" could buy the materials at HOME DEPOT™ or any hardware discounter, lumberyard or building supply distributor; and with reasonable skill, install the system; or in the alternative, employ a craftsman or contractor. [The applicant's invention thus opens up (for the first time) **retail merchandising and distribution**, a very important feature in the marketplace.]

In the event of failure of the electrical heating means (or any component thereof) —probably inevitable over a relatively long time period— the fault can be quickly located, and just the pertinent block or blocks simply pulled up and out of the pan or form for easy access to the failed component of the heating means. This greatly facilitates repair and replacement.

It's the easy installation and convenient repair or replacement that is the significant advantage of the applicant's modular D.I.Y. heating system for a driveway, walkway, patio, etc.

A Review of the Current Claims
and Arguments for Allowance

Claim 1 (as amended) recites, *inter alia* —

- "a form suitably retained on an existing surface" (of a driveway, etc.)
- "at least one block disposed within the form"
- electrical heating means disposed between the block and the form", and
- "the block being removably disposed in the form for substantially easier and convenient access to the electrical heating means"
- "thereby avoiding the necessity for digging up any concrete or masonry materials."

The current commercial practice (please see Exhibit E) is to dig up the concrete or masonry surface for access to the electrical heating means.

The cited prior art —*Hutter* '084, *Liebich* '768 and *Dyer* '488 (Exhibits A, B and C, respectively) — all have the electrical heating means integrally associated with the block, *not sandwiched between the block and the pan*. Moreover, *Liebich* has the “block” itself secured to the surface (of a stairs) and *not* a block merely placed in a pan or form which itself has previously been anchored to the masonry surface. The block in applicant’s invention is not anchored to the driveway surface.

Accordingly, it is respectfully solicited that amended claim 1 is not disclosed, taught, suggested nor rendered obvious by the cited art; and thus a favorable consideration and allowance of claim 1 is respectfully urged.

Claims 2-6, 11 and 21 are each dependent on claim 1 and recite additional structure which, in combination, are patentably distinguished over the cited art and, accordingly, an allowance thereof is respectfully solicited.

Claim 2, for example, calls for the “keying means between the ... block and the form” and thus claim 2 is further patentably distinguished over the cited art.

Claim 22 is further dependent on (dependent) claim 5 and specifically calls for the fault detecting means, and thus is also allowable.

Finally, new claim 24 recites, *inter alia* —

- “a pan anchored to an existing driveway”
- “heating means laid in the pan”

- “at least one block laid in the pan over the heating means ... (which is)
“sandwiched between the block and the pan and is not physically connected
to the block or pan”
- “keying means between the pan and the block, thereby frictionally retaining
the block against substantial lateral movement of the block within the pan”
(and)
- “the block may be simply lifted up and out of the pan against the frictional
retention of the keying means, thereby providing convenient and ready
access to the heating means for repair or replacement thereof”.

Accordingly, and for the reasons aforesaid, claim 24 is also allowable; and the same is respectfully urged.

It appears that all matters have been addressed satisfactorily, and that the case is now in condition for a complete allowance; and the same is respectfully urged.

However, if the Examiner has any comments or questions, or has any suggestions as per MPEP 707.07 (d) and (j), for putting the case in condition for final allowance, he is respectfully urged to contact the undersigned attorney-of-record at the telephone number below, so that an expeditious resolution may be effected and the case passed to issue promptly.

Respectfully submitted,

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Date

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